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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,442	09/04/2003	Francois Baron	PF020109	6456

7590 02/22/2007  
JOSEPH S. TRIPOLI  
THOMSON LICENSING INC.  
Suite 200  
2 INDEPENDENCE WAY  
PRINCETON, NJ 08540

EXAMINER
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PATHAK, SUDHANSHU C

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
2 MONTHS	02/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/655,442	BARON ET AL.	
	Examiner	Art Unit	
	Sudhanshu C. Pathak	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on Sept. 4<sup>th</sup>, 2003.
- 2a) ☐ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Sept. 4<sup>th</sup>, 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-to-5 are pending in the application.

#### ***Information Disclosure Statement***

2. The reference disclosed in the IDS dated April 26<sup>th</sup>, 2004 and also duplicated in the IDS dated Sept. 4<sup>th</sup>, 2003 has not been considered since it does not comply with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." (3) **For non-English documents that are cited, the following must be provided:** (a) A concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, unless a complete translation is provided; and /or (b) A written English language translation of a non-English language document, or portion thereof, if it is within

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the possession, custody or control of, or is readily available to any individual designated in 37 CFR 1.56(c).

3. For the reasons stated above the information disclosure statement(s) filed on April 26<sup>th</sup>, 2004 & Sept. 4<sup>th</sup>, 2003 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. **The IDS's have been placed in the application file, but the information referred to therein has not been considered.**

However, the US references have been considered.

#### ***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The Abstract sheet includes the "Title" of the invention, this should be removed.

As stated above the Abstract should be limited to a single paragraph, however the Abstract as disclosed includes two paragraphs with the second paragraph includes "Figure 5", this should be removed.

5. The disclosure is objected to because of the following informalities:

The specification on Page 1, line 20 discloses the word "millimeter", this should actually be "millimetre". It is recommended that the spelling of this word be corrected throughout the specification.

### ***Claim Objections***

6. Claim 1 is objected to because of the following informalities:

Claim 1 on line 3 discloses "...these components, wherein:", the MPEP in "2106 [R-5] Patent Subject Matter Eligibility" / II. "DETERMINE WHAT APPLICANT HAS INVENTED AND IS SEEKING TO PATENT" / C. "Review the Claims" discloses: The subject matter of a properly construed claim is defined by the terms that limit its scope. It is this subject matter that must be examined. As a general matter, the grammar and intended meaning of terms used in a claim will dictate whether the language limits the claim scope. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. The following are examples of language that may raise a question as to the limiting effect of the language in a claim:

- (A) statements of intended use or field of use,
- (B) "adapted to" or "adapted for" clauses,
- (C) "wherein" clauses, or
- (D) "whereby" clauses.

This list of examples is not intended to be exhaustive. See also MPEP § 2111.04. A suggested correction to overcome this objection is to replace "wherein" with "comprising". Furthermore, the claim language for the body of the claim be modified to be compatible with the term "comprising". A suggested correction is to change the body of the claim: "filtering I and Q components...."; "inserting alternately.....".

7. Claim 1 is objected to because of the following informalities:

Claim 1, line 4 discloses "...signals I/Q...", this should actually be "...signals I and Q...".

This should be corrected in all the claims.

***Allowable Subject Matter***

8. Claims 1-5 are allowable over the prior art of record because the cited references do not contain the specified limitation of a method of modulation of a carrier, in particular an RF carrier, in which two quadrature components I and Q are generated and a local frequency is vectorially modulated with these components, wherein: signals I/Q are filtered around the zero frequency so as to create a small free frequency bands; into this small free frequency band are inserted alternately into the signal I and into the signal Q a low-frequency subcarrier sufficiently remote from zero as not to engender any shift error of the continuous component and of a sufficiently low relative level with respect to that of the signal I and Q so as not to disturb the latter; a fraction of the vectorially modulated signal is demodulated in a synchronous manner with the same local frequency alternately cosine-wise and sine-wise; a low-pass filtering is carried out on the demodulation signal so as to extract the subcarrier marred by amplitude and phase errors corresponding successively to the amplitude and phase errors with which the signals I and Q are marred after the vector modulation; these amplitude and phase errors are measured; and the initial components I and Q

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are feedback-corrected on the basis of these measurements so as to compensate for these errors.

***Conclusion***

9. This application is in condition for allowance except for the following formal matters as described above.

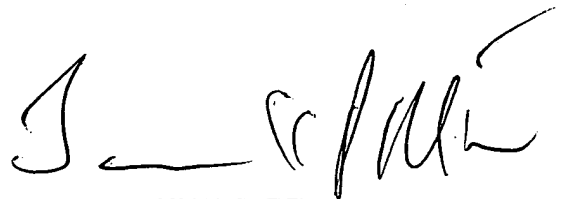
Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sudhanshu C. Pathak whose telephone number is (571)-272-3038. The examiner can normally be reached on M-F: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571)-272-3042.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

A handwritten signature in black ink, appearing to read 'J. K. Patel', is written over the printed name and title.

JAY K. PATEL  
SUPERVISORY PATENT EXAMINER

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sudhanshu C. Pathak  
Examiner  
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